

PTU

Applicant's Docket No. U 015152-6

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

of \_\_\_\_\_  
Inventor(s)

for \_\_\_\_\_  
Title of invention

**OR**

In re application of: Chia Gee WANG, et al

Serial No.: 10/823,990

Group No.: 2811

Filed: April 14, 2004

Examiner:

For: SI/C SUPERLATTICE USEFUL FOR SEMICONDUCTOR DEVICES

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. 1.97(b))**

**CERTIFICATION UNDER 37 C.F.R. 1.8(a) and 1.10\***

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**37 C.F.R. 1.8(a)**

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Signature

**WILLIAM R. EVANS**

*(type or print name of person certifying)*

Date: December 30, 2004

\* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

**NOTE:** 37 C.F.R. 1.98(b):

- (1) *Each U.S. patent listed in an information disclosure statement must be identified by inventor, patent number, and issue date.*
- (2) *Each U.S. patent application published listed in an information disclosure statement shall be identified by applicant, patent application publication number, and publication date.*
- (3) *Each U.S. application listed in an information disclosure statement must be identified by the inventor, application number, and filing date.*
- (4) *Each foreign patent or published foreign patent application listed in an information disclosure statement must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application.*
- (5) *Each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication.*

**WARNING:** *No extension of time can be had under 37 C.F.R. § 1.36 (a) or (b) for filing an IDS. 37 C.F.R. § 1.97(f).*

**NOTE:** *The "filing date of a national application" under 37 C.F.R. 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark office, the filing is defined in 37 C.F.R. 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 C.F.R. 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.495. 35 U.S.C. § 371(c) requires the filing of the following: (1) the national fee; (2) a copy of the international application, unless already sent by the International Bureau, and an English translation if filed in another language; (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. 37 C.F.R. 1.97(b)(2).*

## **IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT**

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. 1.97(b).

**NOTE:** *"No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing."*

**NOTE:** *"An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 C.F.R. 1.8, or Express Mail certificate under 37 C.F.R. 1.10. An office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39).*

**NOTE:** *"The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three-months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).*

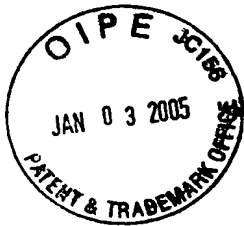
**WARNING:** *"A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 C.F.R. 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63).*

Signature of Practitioner

CLIFFORD J. MASS  
(type or print name of practitioner)

P.O. Address \_\_\_\_\_

c/o Ladas & Parry LLP  
26 West 61<sup>st</sup> Street  
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Chia Gee WANG, et al  
Serial No.: 10/823,990 Group No.: 2811  
Filed: April 14, 2004 Examiner:  
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Attorney Docket No.: U 015152-6

Commissioner for Patents  
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Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

We draw the attention of the Examiner to the attached references which are considered in the specification and which are also listed on the attached Form PTO-1449.

**CERTIFICATION UNDER 37 C.F.R. 1.8(a) and 1.10\***

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**37 C.F.R. 1.8(a)**

**37 C.F.R. 1.10\***

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Date: December 30, 2004

Signature

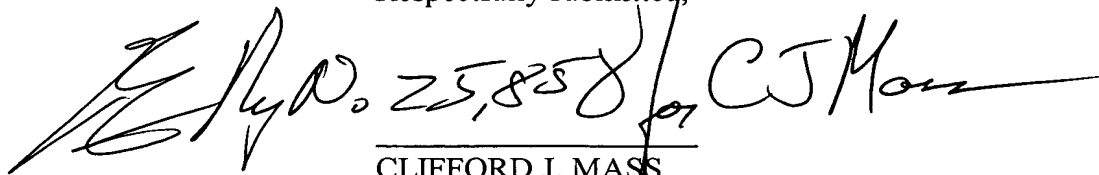
**WILLIAM R. EVANS**

*(type or print name of person certifying)*

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"Since the filing of correspondence under § 1.10 without the Express Mail mailing label thereon is an oversight that can be avoided by the exercise of reasonable care, requests for waiver of this requirement will not be granted on petition." Notice of Oct. 24, 1996, 60 Fed. Reg. 56,439, at 56,442.

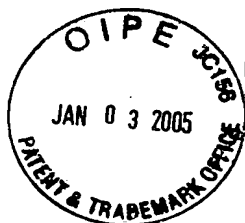
We also draw the Examiner's attention to cited reference "Applied Physics A (2000) 71, p 391-402" which discloses on page 397 and in Fig. 13 a superlattice comprising Si/CO.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Clifford J. Mass", is written over a horizontal line. To the left of the signature, the text "Exh. 25,858" is handwritten.

CLIFFORD J. MASS  
LADAS & PARRY LLP  
26 WEST 61ST STREET  
NEW YORK, NEW YORK 10023  
REG. NO.30,086(212)708-1890

FORM PTO-1449

U. S DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEINFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.

SERIAL NO.

U 015152-6

10/823,990

APPLICANT

Chia Gee WANG et al.

FILING DATE

GROUP

April 14, 2004

2811

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	FILING DATE IF APPROPRIATE
	AA	6,376,337	04/02	Wang et al.	
	AB	6,294,802	09/01	Unozawa	
	AC	6,355,951	03/02	Hattori	
	AD	6,479,836	11/02	Suzuki et al.	
	AE	6,452,206	09/02	Harman et al.	
	AF	6,537,911	03/03	Ko et al.	
	AG	4,261,771	04/1981	Dingle et al.	
	AH				
	AI				

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	AJ					
	AK					
	AL					
	AM					

## OTHER ART (Including Author, Title, Date, Pertinent Dates, Etc.)

	AN	Tsu, R. "Phenomena in silicon nanostructure devices", <i>Applied Physics A</i> (2000), 71: 391-402
	AO	Tsu, Raphael et al. "Quantum Confinement in Silicon", <u>Proceedings of the Fourth International Symposium on Quantum Confinement: Nanoscale Materials, Devices, and Systems</u> , Volume 97-11. Cahay, M. et al. Editors. New Jersey: The Electrochemical Society, Inc. 341-351
	AP	Ding, Jinli and Raphael Tsu. "The determination of activation energy in quantum wells", <i>Appl. Phys. Lett.</i> (1997), 71(15): 2124-2126
	AQ	Seo, Yong-Jin and Raphael Tsu. "Electronic and Optical Characteristics of Multilayer Nanocrystalline Silicon/Adsorbed Oxygen Superlattice", <i>Jpn. J. Appl. Phys.</i> (2001), 40: 4799-4801
	AR	Seo, Yong-Jin et al. "Transport through a nine period silicon/oxygen superlattice", <i>Applied Physics Letters</i> (2001), 79(6): 788-790

EXAMINER

DATE CONSIDERED

EXAMINER:

Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.